Application Number 10/825,209 Attorney Docket Number 616366v1

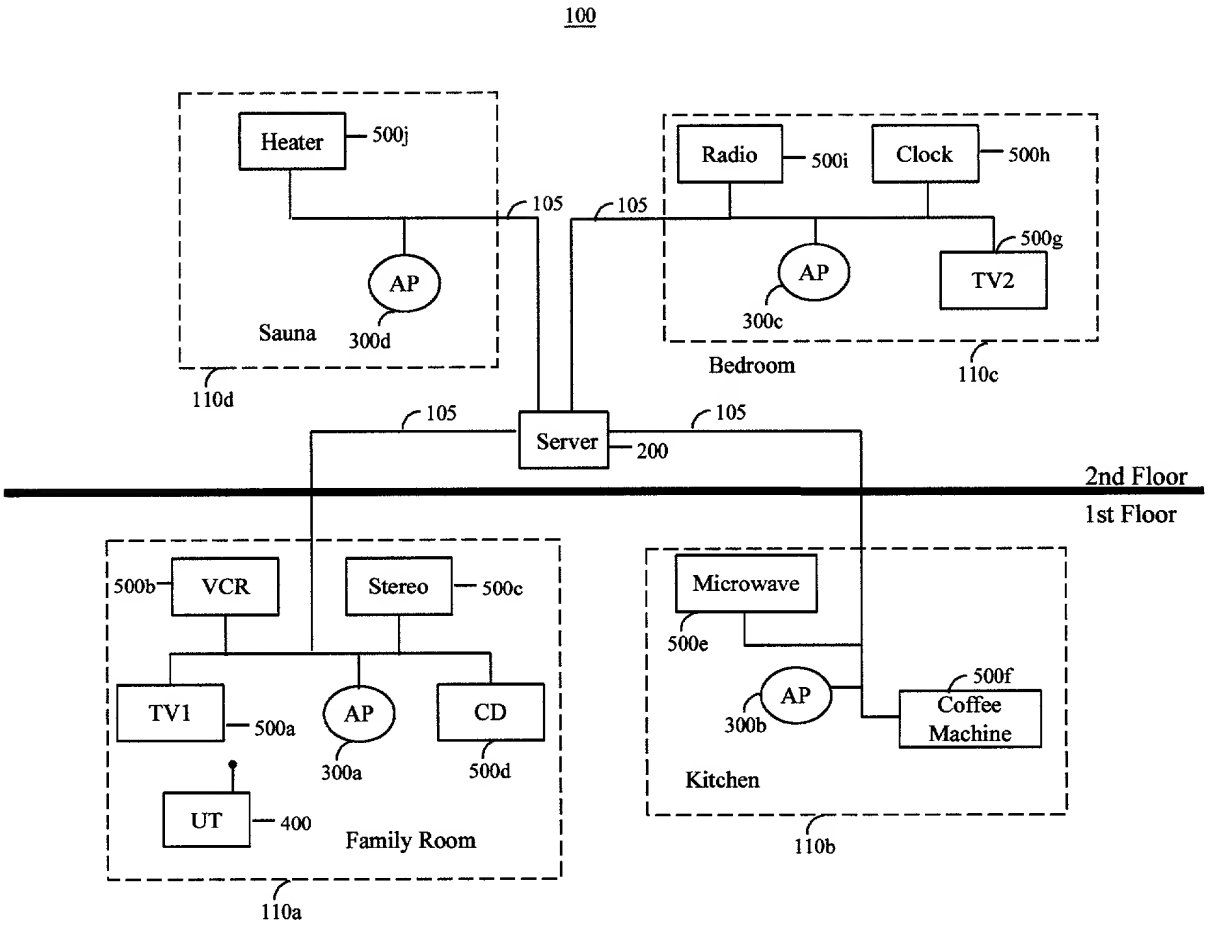

FIG. 1

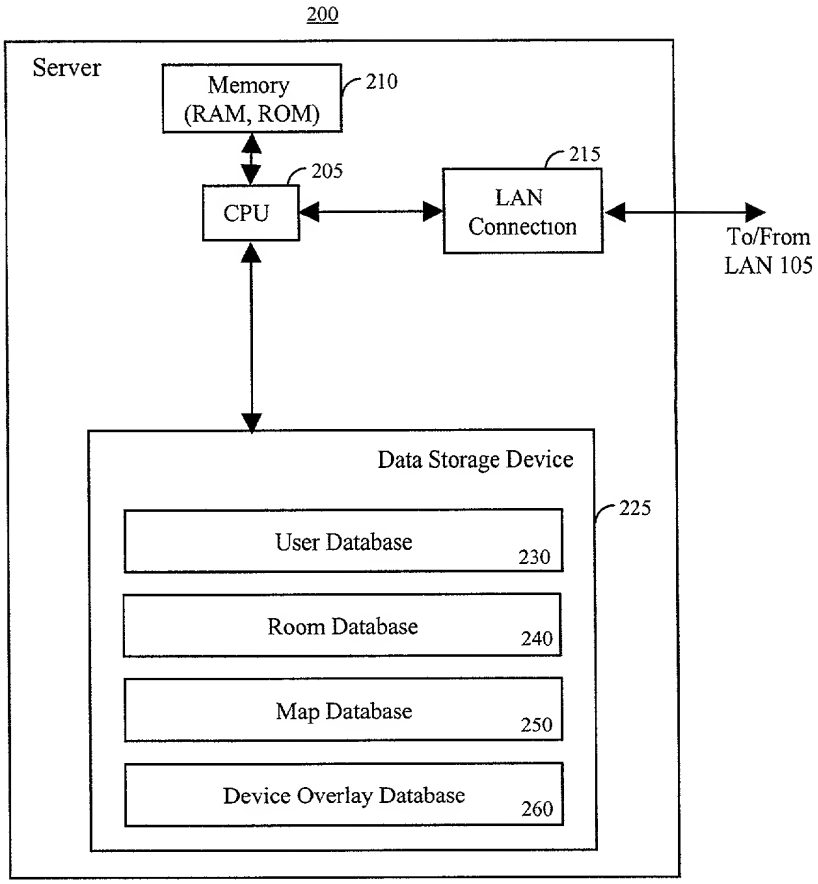
200
Server
Memory
(RAM, ROM)
210
205
CPU
215
LAN
Connection
To/From
LAN 105
Data Storage Device
225
User Database
230
Room Database
240
Map Database
250
Device Overlay Database
260

FIG. 2

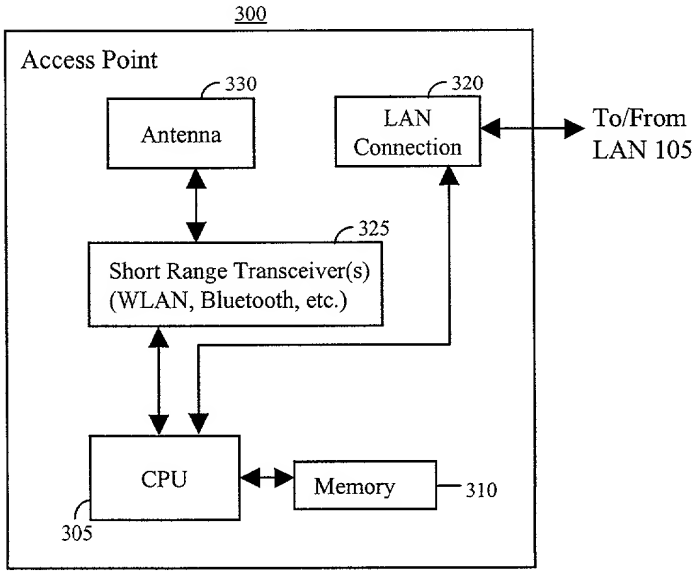
300
Access Point
330
Antenna
320
LAN
Connection
To/From
LAN 105
325
Short Range Transceiver(s)
(WLAN, Bluetooth, etc.)
CPU
Memory
310
305

FIG. 3

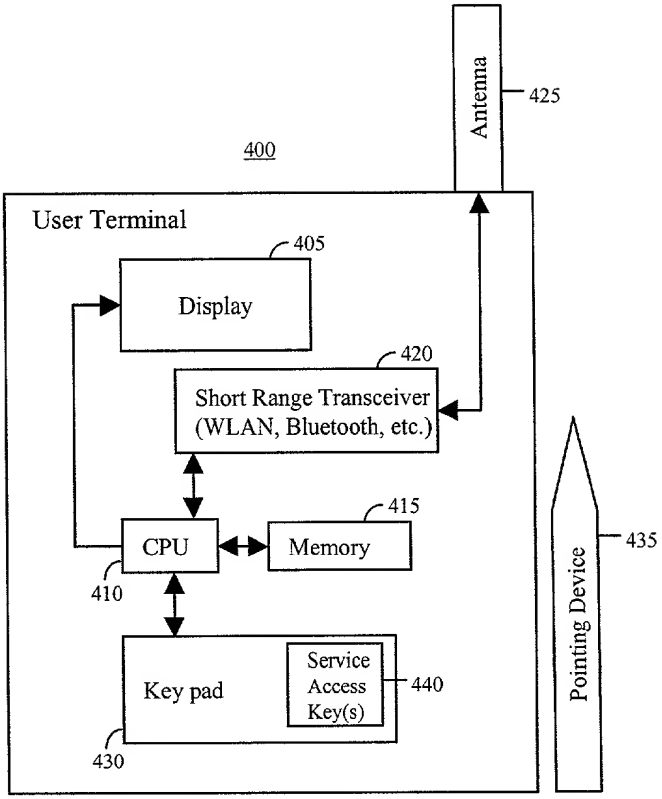
Antenna
425
400
User Terminal
405
Display
420
Short Range Transceiver
(WLAN, Bluetooth, etc.)
415
CPU
Memory
410
435
Pointing Device
Key pad
Service
Access
Key(s)
440
430

FIG. 4

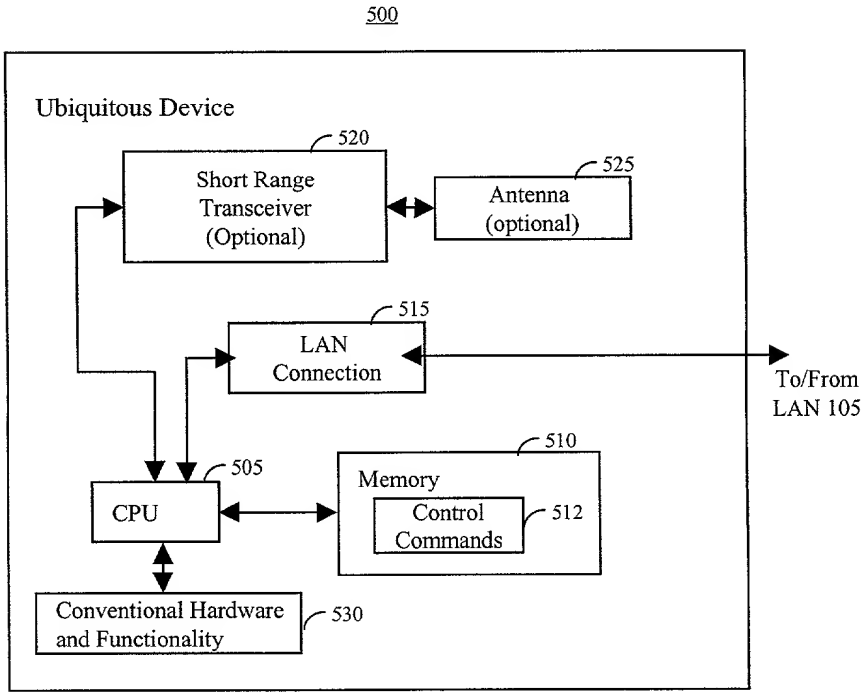
500
Ubiquitous Device
520
Short Range
Transceiver
(Optional)
525
Antenna
(optional)
515
LAN
Connection
To/From
LAN 105
510
505
Memory
CPU
Control
Commands
512
Conventional Hardware
and Functionality
530

FIG. 5

User Database 230

User Name 605	UID # 610	Accessible Devices 615
A	11529	TV1, VCR, Stereo, CD
B	24365	TV1
⋮	⋮	⋮

FIG. 6

Room Database 240

Access Point ID 705	Map Name 710	Ubiquitous Device Overlay 715	Floor 720
1234	Familyroom.bmp	Familyroom.ubi.devices	1
2341	Kitchen.bmp	Kitchen.ubi.devices	1
⋮	⋮	⋮	⋮
3524	Bedroom.bmp	Bedroom.ubi.devices	2
5214	Sauna.bmp	Sauna.ubi.devices	2

FIG. 7

Map Database 250

Map Name 805	Map Coordinates 810	Symbols 815	Labels 820
Familyroom.bmp	X_{MIN}, X_{MAX}, Y_{MIN}, Y_{MAX}	bitmap	text
Kitchen.bmp	X_{MIN}, X_{MAX}, X_{MIN}, X_{MAX}	bitmap	text
⋮	⋮	⋮	⋮

FIG. 8

Ubiquitous Device Overlay Database 260

Familyroom.ubi.devices					
Device Name 905	Icon Information 910	Device Coordinates 915	Address 920	Control Panel Information 925	UIDs of Authorized Users 930
TV1	Data	X, Y	123.456.789	Data	11529; 24365
VCR	Data	X, Y	243.621.599	Data	11529
⋮	⋮	⋮	⋮	⋮	⋮

FIG. 9

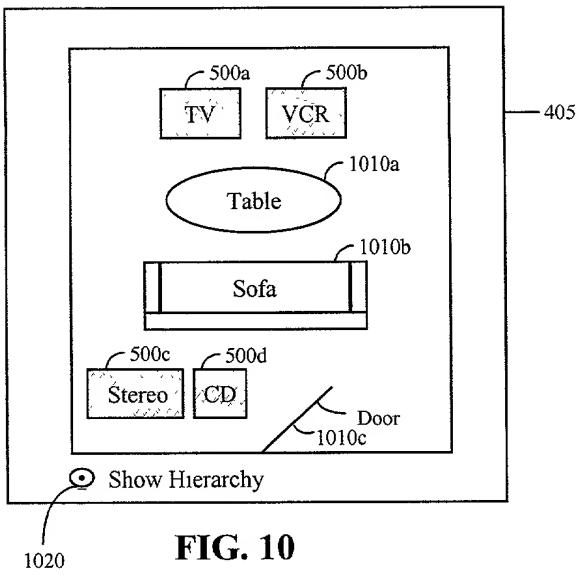

FIG. 10

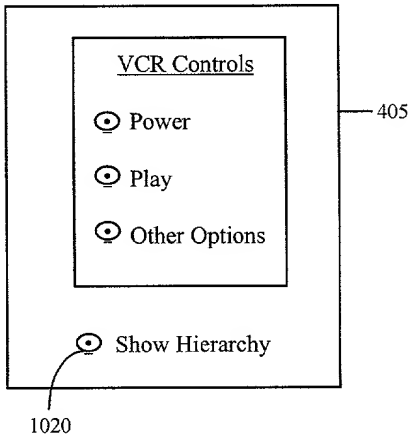

FIG. 11

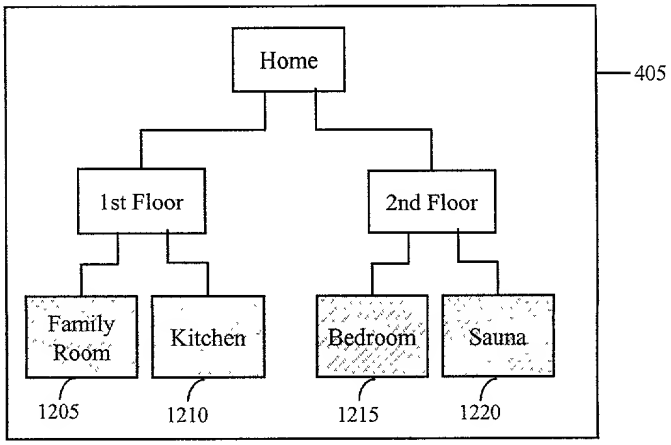

FIG. 12

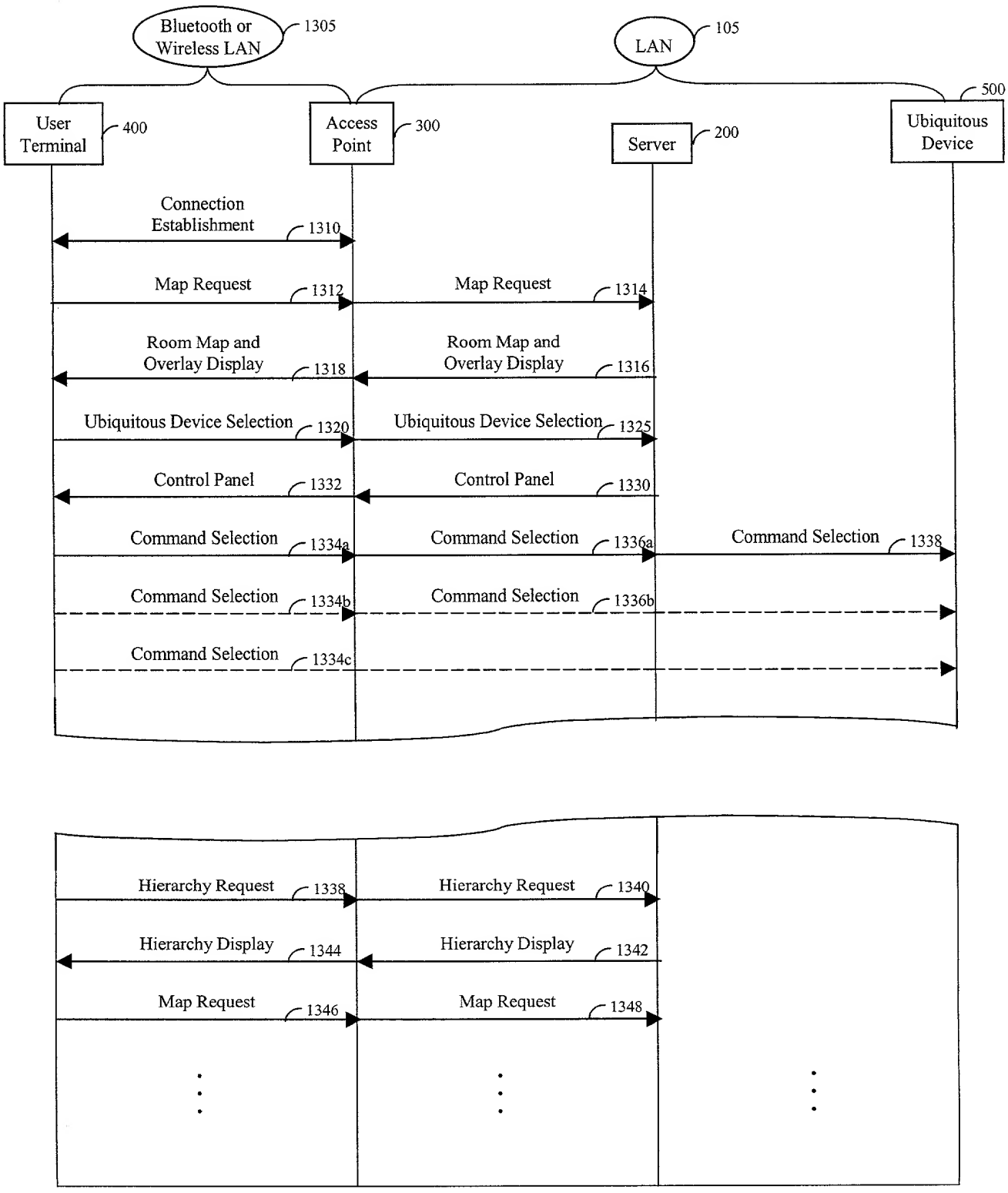
Bluetooth or Wireless LAN
1305
LAN
105
500
User Terminal
400
Access Point
300
Server
200
Ubiquitous Device
Connection Establishment
1310
Map Request
1312
Map Request
1314
Room Map and Overlay Display
1318
Room Map and Overlay Display
1316
Ubiquitous Device Selection
1320
Ubiquitous Device Selection
1325
Control Panel
1332
Control Panel
1330
Command Selection
1334a
Command Selection
1336a
Command Selection
1338
Command Selection
1334b
Command Selection
1336b
Command Selection
1334c
Hierarchy Request
1338
Hierarchy Request
1340
Hierarchy Display
1344
Hierarchy Display
1342
Map Request
1346
Map Request
1348

FIG. 13